

AMENDMENTS TO THE CLAIMS

Claims 1-37 were pending prior to this amendment.

Please amend claims 6 and 31.

No claims are added.

No claims are canceled.

Claims 35-37 are withdrawn from consideration in view of a restriction requirement.

The following listing of claims replaces all prior versions, and listings of claims in the application.

Listing of Claims:

1. (Original) A method comprising:
providing user interface information into firmware on a USB device, the user interface information corresponding to the USB device; and
responsive to receiving a host-specific device request, communicating the user interface information to a requestor.

2. (Original) A method as recited in claim 1, wherein the user interface information comprises:

a custom property section comprised of one or more custom property entries, each custom property entry comprising information that corresponds to a respective custom property for the USB device.

3. (Original) A method as recited in claim 1, wherein the user interface information comprises:

a custom property section comprising one or more custom property entries, each custom property entry corresponding to a respective custom property for the USB device; and

a header section comprising an indication of the number of custom property entries for which mappings exist in the custom property section.

4. (Original) A method as recited in claim 1, wherein the user interface information is selected from information comprising an icon, a font, a picture, a label, a help page, or a URL.

5. (Original) A method as recited in claim 1, wherein the user interface information is in a data format specified by an operating system.

6. (Presently amended) A method comprising
querying a USB device with a host-specific device request that corresponds to a descriptor an extended property descriptor, the extended property descriptor being stored in firmware of the USB device and indicating user interface information corresponding to the USB device; responsive to the querying, receiving the user interface information; and

displaying a set of user interface elements specified by the user interface information.

7. (Original) A method as recited in claim 6, wherein the descriptor comprises:

a custom property section comprised of one or more custom property entries, each custom property entry comprising information that corresponds to a respective custom property for the USB device.

Ad 8. (Original) A method as recited in claim 6, wherein the descriptor comprises:

a custom property section comprising one or more custom property entries, each custom property entry corresponding to a single custom property for the USB device; and

a header section comprising an indication of the number of custom properties property entries for which mappings exist in the custom property section.

9. (Original) A method as recited in claim 6, wherein the set of user interface elements are selected from elements comprising an icon, a font, a picture, a label, a help page, or a URL.

10. (Original) A method as recited in claim 6, wherein the user interface information is in a data format specified by an operating system.

11. (Original) One or more computer-readable media containing a computer executable program that performs a method as recited in claim 6.

A4 12. (Original) In a USB device that responds to device requests from a host, the device requests including USB-specific device requests with corresponding USB-specified request codes and device-specific device requests with corresponding device-specified request codes, the USB-specific device requests including a GET_DESCRIPTOR device request with a corresponding GET_DESCRIPTOR request code, a method of implementing a host-specific device request to display user interface elements that correspond to the USB device, the method comprising:

receiving a GET_DESCRIPTOR device request that specifies a predetermined index; and

responding to the GET_DESCRIPTOR device request by returning a descriptor that corresponds in the USB device to the host-specific device request for a device-specific request code, the descriptor specifying user interface information corresponding to the USB device.

13. (Original) A method as recited in claim 12, wherein the user interface information comprises:

a custom property section comprised of one or more custom property entries, each custom property entry comprising information that corresponds to a respective custom property for the USB device.

14. (Original) A method as recited in claim 12, wherein the user interface information comprises:

a custom property section comprising one or more custom property entries, each custom property entry corresponding to a single custom property for the USB device; and

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a header section comprising an indication of the number of custom properties property entries for which mappings exist in the custom property section.

15. (Original) One or more computer-readable media containing a computer executable program that performs a method as recited in claim 12.

16. (Original) A method comprising:

communicating a non-standard USB device request to a device; and

responsive to the communicating, receiving an extended property descriptor from the device, the extended property descriptor specifying user interface information corresponding to the USB device.

17. (Original) A method as recited in claim 16, wherein the user interface information comprises information that is used by an operating system to augment a shell or user interface to represent the device.

18. (Original) A method as recited in claim 16, wherein the extended property descriptor further comprises a custom property section comprised of one or more custom property entries, each custom property entry comprising information that corresponds to a respective custom property for the device.

19. (Original) A method as recited in claim 16, wherein the extended property descriptor further comprises:

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a custom property section comprising one or more custom property entries, each custom property entry corresponding to a single custom property for the USB device; and

a header section comprising an indication of the number of custom properties property entries for which mappings exist in the custom property section.

20. (Original) A method as recited in claim 16, wherein the extended property descriptor comprises user interface information corresponding to the USB device, the method further comprising:

responsive to receiving the property descriptor, providing information corresponding to the user interface information to computer program applications.

21. (Original) A USB device comprising:

a processor;

a port coupled to the processor;

a memory coupled to the processor;

an extended property descriptor stored in the memory, the extended property descriptor identifying a set of user interface information corresponding to the USB device; and

AU a control program module stored in the memory, the control program module being configured to send the extended configuration descriptor to a requestor in response to receiving a host-specific device request at the port.

22. (Original) A USB device recited in claim 21, wherein the extended property descriptor comprises:

a custom property section comprised of one or more custom property entries, each custom property entry comprising information that corresponds to a respective custom property for the USB device.

23. (Original) A USB device recited in claim 21, wherein the extended property descriptor comprises:

a custom property section comprising one or more custom property entries, each custom property entry corresponding to a single custom property for the USB device; and

a header section comprising an indication of the number of custom properties property entries for which mappings exist in the custom property section.

24. (Original) A USB device recited in claim 21, wherein the set of user interface information is in a data format specified by an operating system.

25. (Original) A computer-readable storage medium containing computer-executable instructions utilized by an application program to interact with a USB device, wherein the computer-executable instructions comprise:

A4 receiving a request from an application program for a descriptor that specifies user interface information corresponding to the USB device;

querying the USB device with a host-specific device request to obtain the property descriptor;

responsive to the querying, receiving the descriptor; and

providing the received property descriptor to the requesting application program.

26. (Original) A computer-readable storage medium as recited in claim 25, wherein the user interface information corresponds to information used to augment a shell or user interface that is presentable to a user.

27. (Original) A computer-readable storage medium as recited in claim 25, wherein the obtained property descriptor comprises:

one or more custom property sections, each custom property section indicating information corresponding to a user interface element for the USB device.

28. (Original) A computer-readable storage medium as recited in claim 25, wherein the obtained property descriptor comprises:

a header section indicating the number of custom properties for which mappings exist in the property descriptor; and,

one or more custom property sections, each custom property section indicating information corresponding to a user interface element for the USB device.

29. (Original) A computer-readable storage medium as recited in claim 25, wherein the user interface information is selected from information comprising an icon, a font, a picture, a label, a help page, or a URL.

30. (Original) A computer comprising one or more computer-readable media as recited in claim 25.

31. (Presently amended) One or more computer-readable media containing a computer-executable program for use in conjunction with a USB device that responds to device requests from the program, the device requests including USB-specific device requests with corresponding USB-specified request codes and device-specific device requests with corresponding device-specified request codes, ~~codes~~, codes, the program comprising:

A4 receiving a host-specific request for an extended property descriptor from a requestor, the extended property descriptor indicating one or more user interface elements that correspond to the USB device;

responsive to the receiving, communicating the extended property descriptor to the requestor.

32. (Original) One or more computer-readable media as recited in claim 31, wherein the property descriptor comprises:

a custom property section that corresponds to a user interface element associated with the USB device.

33. (Original) One or more computer-readable media as recited in claim 31, wherein the property descriptor comprises:

a header section indicating the number of custom properties for which mappings exist in the property descriptor; and,

one or more custom property sections, each custom property section corresponding to a respective user interface associated with the USB device.

34. (Original) A computer comprising one or more computer-readable media as recited in claim 31.

35. (Withdrawn) A computer-readable medium having stored thereon a data structure, comprising:

a first data field comprising data indicating a count indicating the number of control property entries for which mappings exist in a descriptor; and

one or more second data fields, the number of second data fields based on the count, each second data field comprising data corresponding to a custom property for a USB device.

36. (Withdrawn) A computer-readable medium as recited in claim 35, wherein the first data field further comprises:

a total descriptor length indication; and
a descriptor version indication.

37. (Withdrawn) A computer-readable medium as recited in claim 35, wherein each second data field further comprises:

a custom property section length indication;
a data type indication of the custom property;
a property name corresponding to the custom property; and
a set of property data corresponding to the custom property.